☐ 1: Ann Thorac Surg. 1998 May;65(5):1313-5.

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ELSEVIER SCIENCE FULL-TEXT ARTICLE

Aortic valve operations under deep hypothermic circulatory arr for the porcelain aorta: "no-touch" technique.

Byrne JG, Aranki SF, Cohn LH.

Division of Cardiac Surgery, Brigham and Women's Hospital, Harvard Medi School, Boston, Massachusetts 02115, USA.

BACKGROUND: Aortic valve replacement or repair becomes a high-risk procedure in patients in whom the ascending aorta cannot be clamped either because of extensive calcification and risk of cerebral embolus or because of extensive adhesions precluding safe dissection and clamping. METHODS: W report the results of aortic valve replacement or repair with deep hypothermic circulatory arrest in 3 patients. Techniques to improve results include routine of epiaortic and transesophageal echocardiography, avoidance of manipulatio the ascending aorta until the circulation is arrested, avoidance of antegrade cardioplegia, routine use of retrograde cardioplegia and retrograde cerebral perfusion, when feasible, and minimal aortotomy (just enough to excise and replace or repair the valve). RESULTS: Operations were accomplished in approximately 1 hour each with minimal manipulation of the aorta, thus minimizing aortic trauma and subsequent risk of cerebral embolus. Each patie had an unremarkable recovery without neurologic complications. CONCLUSIONS: Aortic valve replacement or repair using the "no-touch" technique and deep hypothermic circulatory arrest is the preferred method wh dealing with the porcelain or unclampable aorta.

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